Statement of Special Inspections, 2010 CBC

Project: .....

Location: .....

This Statement of Special Inspections is submitted in fulfillment of the requirements of CBC Sections 1704 and 1705. Included are:

- Schedule of Special Inspections and tests applicable to this project:
  - ☐ Special Inspections per Sections 1704 and 1705
  - ☐ Special inspections for Seismic Resistance
  - ☐ Special inspections for Wind Resistance
- List of the Testing Agencies and other special inspectors that will be retained to conduct the tests and inspections.

Special Inspections and Testing will be performed in accordance with the approved plans and specifications, this statement and CBC sections 1704, 1705, 1707, and 1708.

The Schedule of Special Inspections summarizes the Special Inspections and tests required. Special Inspectors will refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests and inspections required by the approved plans and specifications will also be performed.

Interim reports will be submitted to the Building Official and the Registered Design Professional in Responsible Charge in accordance with CBC Section 1704.1.2

A Final Report of Special Inspections documenting required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy (Section 1704.1.2). The Final Report will document:

- Required special inspections.
- Correction of discrepancies noted in inspections.

The Owner recognizes his or her obligation to ensure that the construction complies with the approved permit documents and to implement this program of special inspections. In partial fulfillment of these obligations, the Owner will retain and directly pay for the Special Inspections as required in CBC Section 1704.1.

This plan has been developed with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors who will perform the inspections.
- Monitor special inspection activities on the job site to assure that the Special Inspectors are qualified and are performing their duties as called for in this Statement of Special Inspection.
- Review submitted inspection reports.
- Perform inspections as required by the local building code.

Prepared by:

_____

Registered Design Professional in Responsible Charge

_____

Signature Date

Owner's Authorization:

Owner

Signature Date

Building Official's Acceptance:

Building Official

Signature Date

Schedule of Inspection, Testing Agencies, and Inspectors

The following are the testing agencies and special inspectors that will be retained to conduct tests and inspection on this project.

Responsibility	Firm	Address, Telephone, e-mail
1. Special Inspection (except for geotechnical)		
2. Material Testing		
3. Geotechnical Inspections		
4.		

Seismic Requirements (Section 1705.3.1)

Description of seismic-force-resisting system and designated seismic systems subject to special inspections as per Section 1705.3:

The extent of the seismic-force-resisting system is defined in more detail in the construction documents.

Wind Requirements (Section 1705.4.1)

Description of main wind-force-resisting system and designated wind resisting components subject to special inspections in accordance with Section 1705.4.2:

The extent of the main wind-force-resisting system and wind resisting components is defined in more detail in the construction documents.

Schedule of Special Inspection

Notation Used in Table:

Column headers:

- C — Indicates continuous inspection is required.
- P — Indicates periodic inspections are required. The notes and or contract documents should clarify.

Box entries:

- X — Is placed in the appropriate column to denote either "C" continuous or "P" periodic inspections.
- --- — Denotes an activity that is either a one-time activity or one whose frequency is defined in some other manner.

Additional detail regarding inspections and tests are provided in the project specifications or notes on the drawings.

Verification and Inspection	C	P	Notes
1704.2.1 - Inspect fabricator's fabrication and quality control procedures.	---	---	
Table 1704.3 - Steel			
1. Material verification of high-strength bolts, nuts, and washers.			
a. Identification markings to conform to ASTM standards specified in the approved construction documents.		X	
b. Manufacturer's certificate of compliance required.		X	
2. Inspection of high-strength bolting:			
a. Bearing-type connections.		X	
b. Slip-critical connections	X	X	
3. Material verification of structural steel:			
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	---	---	
b. Manufacturer's mill test reports	---	---	
4. Material verification of weld filler materials:			
a. Identification markings to conform to AWS designation listed in the WPS.	---	---	
b. Manufacturer's certificate of compliance required.	---	---	
5. Inspection of welding:			
a. Structural steel			

Verification and Inspection	C	P	Notes
1) Complete and partial penetration groove welds.	X		
2) Multipass fillet welds.	X		
3) Single-pass fillet welds > 5/16”.	X		
4) Single-pass fillet welds ≤ 5/16”.		X	
5) Floor and roof deck welds.		X	
b. Reinforcing steel			
1) Verification of weldability of reinforcing steel other than ASTM A706.		X	
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls, and shear reinforcement.	X		
3) Shear reinforcement.	X		
4) Other reinforcing steel		X	
6. Inspection of steel frame joint details for compliance with approved construction documents: a. Details such as bracing and stiffening. b. Member locations. c. Application of joint details at each connection.		X	
1704.3 - Welded studs when used for structural diaphragms.		X	
1704.3 - Welding of cold-formed sheet steel framing members.		X	
1704.3 - Welding of stairs and railing systems.		X	
Table 1704.4 - Concrete			
1. Inspection of reinforcing steel, including prestressing tendons and placement.		X	
2. Inspection of reinforcing steel welding in accordance with Table 1704.3 Item 5b.	---	---	
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.	X		
4. Verifying use of required design mix.		X	
5. At time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.	X		
6. Inspection of concrete and shotcrete placement for proper application techniques.	X		
7. Inspection for maintenance of specified curing temperature and techniques.		X	
8. Inspection of prestressed concrete.			
a. Application of prestressing forces.	X		
b. Grouting of bonded prestressing tendons in the seismic force-resisting system.	X		
9. Erection of precast concrete members.		X	
10. Verification of in-situ concrete strength, prior to stressing of tendons in postensioned concrete and prior to removal of shores and forms from beams and structural slabs.		X	

Verification and Inspection	C	P	Notes
11. Inspect formwork for shape, location, and dimensions of the concrete member being formed.		X	
Table 1704.5.1 - Level 1 Masonry Inspections.			
1. At the start of masonry construction verify the following to ensure compliance:			
a. Proportions of site-prepared mortar.		X	
b. Construction of mortar joints.		X	
c. Location of reinforcement, connectors, prestressing tendons, and anchorages.		X	
d. Prestressing technique.		X	
e. Grade and size of prestressing tendons and anchorages.		X	
2. Verify:			
a. Size and location of structural elements.		X	
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.		X	
c. Specified size, grade, and type of reinforcement.		X	
d. Welding of reinforcing bars.	X		
e. Protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F)		X	
f. Application and measurement of prestressing force.		X	
3. Prior to grouting verify the following to verify compliance.			
a. Grout space is clean.		X	
b. Placement of reinforcement and connectors and prestressing tendons and anchorages.		X	
c. Proportions of site-prepared grout and prestressing grout for bonded tendons.		X	
d. Construction of mortar joints.		X	
4. Verify grout placement to ensure compliance with code and construction document provisions.	X		
a. Observe grouting of prestressing bonded tendons.	X		
5. Observe preparation of required grout specimens, mortar specimens, and/or prisms.	X		
6. Verify compliance with required inspection provisions of the construction documents and the approved submittals.		X	
Table 1704.5.3 - Level 2 Masonry Inspections			
1. From the beginning of masonry construction the following shall be verified to ensure compliance:			
a. Proportions of site-prepared mortar, grout, and prestressing grout for bonded tendons.		X	
b. Placement of masonry units and construction of mortar joints.		X	

Verification and Inspection	C	P	Notes
c. Placement of reinforcement, connectors and prestressing tendons and anchorages.		X	
d. Grout space prior to grouting.	X		
e. Placement of grout.	X		
f. Placement of prestressing grout.	X		
2. Verify:			
a. Size and location of structural elements.		X	
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames and other construction.	X		
c. Specified size, grade, and type of reinforcement.		X	
d. Welding of reinforcing bars.	X		
e. Protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F).		X	
f. Application and measurement of prestressing force.	X		
3. Preparation of any required grout specimens, mortar specimens, and/or prisms shall be observed.	X		
4. Compliance with required provisions of construction documents and the approved submittals shall be verified.		X	
1704.6 - Inspect prefabricated wood structural elements and assemblies in accordance with Section 1704.2	---	---	
1704.6 - Inspect site built assemblies.	---	---	
1704.6.1 - Inspect high-load diaphragms:			
1. Verify grade and thickness of sheathing.	---	---	
2. Verify nominal size of framing members at adjoining panel edges.	---	---	
3. Verify: • Nail or staple diameter and length, • Number of fastener lines, • Spacing between fasteners in each line and at edge margins.	---	---	
Table 1704.7 - Inspection of Soils			
1. Verify materials below footings are adequate to achieve the desired bearing capacity.		X	
2. Verify excavations are extended to proper depth and have reached proper material.		X	
3. Perform classification and testing of controlled fill materials.		X	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X		
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.		X	
Table 1704.8 - Pile Foundations			

Verification and Inspection	C	P	Notes
1. Verify pile materials, sizes and lengths comply with the requirements.	X		
2. Determine capacities of test piles and conduct additional load tests, as required.	X		
3. Observe driving operations and maintain complete and accurate records for each pile.	X		
4. Verify locations of piles and their plumbness. a. Confirm type and size of hammer. b. Record number of blows per foot of penetration. c. Determine required penetrations to achieve design capacity. d. Record tip and but elevations and record any pile damage.	X		
5. For steel piles, perform additional inspections in accordance with Section 1704.3.	---	---	
7. For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	---	---	
8. For augered uncased piles and caisson piles, perform inspections in accordance with Section 1704.9.	---	---	
Table 1704.9 - Pier Foundations			
1. Observe drilling operations and maintain complete and accurate records for each pier.	X		
2. Verify locations of piers and their plumbness. Confirm: • Pier diameters, • Bell diameters (if applicable), • Lengths, embedment into bedrock (if applicable), • Adequate end strata bearing capacity.	X		
1704.10 - Sprayed Fire-Resistant Materials			
1. Inspect surface for accordance with the approved fire-resistance design and the approved manufacturer's written instructions.	---	---	
2. Verify minimum ambient temperature before and after application.	---	---	
3. Verify ventilation of area during and after application.		X	
4. Measure average thickness per ASTM E605 and Section 1704.10.3.	---	---	
5. Verify density of material for conformance with the approved fire-resistant design and ASTM E605.	---	---	
6. Test cohesive/adhesive bond strength per Section 1704.10.5.	---	---	
1704.11 - Mastic and Intumescent Fire-Resistant Coating	---	---	
1704.12 - Exterior Insulation and Finish Systems (EIFS)	---	---	
1704.13 - Alternate Materials and Systems	---	---	
1704.14 - Smoke Control System	---	---	
1705.3 - Seismic Resistance			

Verification and Inspection	C	P	Notes
1705.3 [4.3]:- Suspended ceiling systems and their anchorage.	---	---	
1705.4 Wind Resistance			
1705.4.2 1. Roof cladding and roof framing connections.	---	---	
2. Wall connections to roof and floor diaphragms and framing.	---	---	
3. Roof and floor diaphragm systems, including collectors, drag struts and boundary elements	---	---	
4. Vertical wind-force-resisting systems, including braced frames, moment frames, and shear walls.	---	---	
5. Wind-force-resisting system connections to the foundation.	---	---	
6. Fabrication and installation of systems or components required to meet the impact resistance requirements of Section 1609.1.2.	---	---	
Special Inspections for Seismic Resistance			
1707.2 - Special inspection for welding in accordance with AISC 341.	X		
1707.3 - Structural Wood			
1. Inspect field gluing operations of elements of the seismic-force-resisting system.	X		
2. Inspect nailing, bolting, anchoring, and other fastening of components within the seismic-force-resisting system, including: • wood shear walls, • wood diaphragms, • drag struts, braces, • shear panels, • hold-downs.		X	
1707.4 - Cold-Formed Steel Framing			
1. Welding of elements of the seismic-force-resisting system.		X	
2. Inspection of screw attachments, bolting, anchoring, and other fastening of components within the seismic-force-resisting system including struts, braces, and hold-downs.		X	
1707.5 - Pier Foundations			
1. Placement of reinforcing		X	
2. Placement of concrete	X		
1707.6 - Anchorage of storage racks and access floors 8 feet or greater in height.		X	
1707.7 - Architectural Components			
1. Inspect erection and fastening of exterior cladding weighing more than 5 psf.		X	
2. Inspect erection and fastening of interior and exterior non-bearing walls weighing more than 15 psf.		X	
3. Inspect erection and fastening of interior and exterior veneer weighing more than 5 psf.		X	
1707.8 - Mechanical and Electrical Components			
1. Inspect anchorage of electrical equipment for emergency or stand-by power systems.		X	
2. Inspect anchorage of non-emergency electrical equipment.		X	

Verification and Inspection	C	P	Notes
3. Inspect installation of piping systems and associated mechanical units carrying flammable, combustible, or highly toxic contents.		X	
4. Inspect installation of HVAC ductwork that contains hazardous materials.		X	
5. Inspect installation of vibration isolation systems where required by Section 1707.8.		X	
1707.9 - Verify that the equipment label and anchorage or mounting conforms to the certificate of compliance when mechanical and electrical equipment must be seismically qualified.	---	---	
1707.10 - Seismic isolation system: Inspection of isolation system per ASCE 7 – Section 17.2.4.8		X	
1708.1 - Masonry Testing for Seismic Resistance			
1708.1.1 - Verify certificates of compliance prior to construction.	---	---	
1708.1.2 - Verification of f'_m and f'_{AAC} prior to construction.	---	---	
1708.1.2 - Verification of f'_m and f'_{AAC} every 5000 square feet during construction.		X	
1708.1.4 - Verification of proportions of materials in mortar and grout as delivered to the site.	---	---	
1708.3 - Obtain mill certificates for reinforcing steel, verify compliance with approved construction documents, and verify steel supplied corresponds to certificate.	---	---	
1708.4 - Structural Steel: Invoke the QAP Quality Assurance requirements in AISC 341.	---	---	
1708.5 - Obtain certificate that equipment has been tested per Section 1708.5.	---	---	
1708.6 - Obtain system tests as required by ASCE 7 Section 17.8.	---	---	